

WHAT IS CLAIMED IS:

8427 1. A method of operating an intelligent digital device (IDD) receiving an eXtensible Markup Language (XML) document containing data and respective Document Type Definition (DTD) describing the data content, comprising:  
5 verifying that a received DTD satisfies a predetermined criteria; and  
operating on the data contained in the XML document.

10 2. The method as recited in claim 1, wherein the IDD maintains a list of trusted DTDs and wherein the predetermined criteria is equality between the name of the received DTD and the name of a trusted DTD.

15 3. The method as recited in claim 1, wherein the predetermined criteria comprises the inclusion of the name of a program residing on the IDD.

20 4. The method as recited in claim 3, wherein the program comprises an XML-enabled program.

25 5. The method as recited in claim 3, wherein the program comprises an XML parser.

30 6. A method of operating a system including a digital network interconnected intelligent digital devices (IDDs) generating and receiving eXtensible Markup Language (XML) documents containing data and respective Document Type Definitions (DTDs) describing the data content, comprising:

35 transmitting a generated XML document from a first IDD to a second IDD; and  
when the respective DTD for the generated XML document satisfies a predetermined criteria, operating on the data contained in the XML document at the second IDD.

40 7. The method as recited in claim 6, wherein the second IDD maintains a list of trusted

DTDs and wherein the predetermined criteria is equality between the name of the respective DTD and the name of a trusted DTD.

8. The method as recited in claim 6, wherein the predetermined criteria comprises the inclusion of the name of a program residing on the second IDD.

9. The method as recited in claim 8, wherein the program comprises an XML-enabled program.

10. The method as recited in claim 8, wherein the program comprises an XML processor.

11. The method as recited in claim 6, wherein:

the transmitting step comprises transmitting the generated XML document from the first IDD to the second IDD and a third IDD;

the operating step comprises operating on the data contained in the XML document at the second IDD when the respective DTD for the generated XML document satisfies a first predetermined criteria, and

the method further comprises the step of operating on the data contained in the XML document at the third IDD when the respective DTD for the generated XML document satisfies a second predetermined criteria.

12. The method as recited in claim 11, wherein:

the second IDD maintains a first list of trusted DTDs;

the third IDD maintains a second list of trusted DTDs;

the first predetermined criteria is equality between the name of the respective DTD and the name of a trusted DTD on the first list; and

the second predetermined criteria is equality between the name of the respective DTD and the name of a trusted DTD on the second list.

13. The method as recited in claim 11, wherein the XML document and the respective DTD are transmitted to the second and third IDD.

14. The method as recited in claim 11, wherein the respective DTD is stored on at least one of the second and third IDDs.

15. A method of operating a system including a digital network interconnected intelligent digital devices (IDDs) generating and receiving eXtensible Markup Language (XML) documents containing data and respective Document Type Definitions (DTDs) describing the data content, comprising:

(a) generating an XML document containing related data and a reference to a respective DTD at a first IDD responsive to a command from a second IDD;

(b) transmitting the XML document from the first to the second IDD;

(c) when the respective DTD satisfies a predetermined criteria, parsing the data in the XML document in accordance with the format described in the respective DTD to thereby generate parsed data from the related data; and

(d) operating on the parsed data.

16. The method as recited in claim 15, wherein:

the second IDD stores a list of trusted DTDs associated with respective XML processors; the predetermined criteria is coincidence between the respective DTD and a trusted DTD on the list; and

the parsing and the operating steps are performed using the one of the XML processors corresponding to the respective DTD.

17. The method as recited in claim 16, wherein:

the second IDD stores a plurality of DTDs and associated XML processors;

the XML document references the respective DTD; and

the parsing and the operating steps are performed using the one of the XML processors

corresponding to the respective DTD.

18. A system comprising:

a plurality of intelligent digital devices (IDDs) interconnected to one another, each of the  
5 IDDs being capable of one of generating and receiving an eXtensible Markup Language (XML)  
document containing data and referencing a document type definition (DTD); wherein:

a first IDD generates the XML document responsive to a command received over the  
IHDN;

a second IDD stores N XML processors associated with N named DTDs;

10 a third IDD stores M XML processors associated with M named DTDs;

the second IDD processes the XML document using one of the N XML processors when  
the respective DTD corresponds to one of the N named DTDs;

the third IDD processes the XML document using one of the M XML processors when  
the respective DTD corresponds to one of the M named DTDs; and

N and M are both positive integers.

19. The system as recited in claim 18, wherein at least one of the N named DTDs and at  
least one of the M named DTDs are identical to the respective DTD, and wherein the one of the  
N XML processors corresponding to the respective DTD is different than the one of the M XML  
processors corresponding to the respective DTD.

20. The system as recited in claim 18, wherein the second IDD stores the N named  
DTDs, and wherein the third IDD stores the M named DTDs.

21. The system as recited in claim 18, wherein the second and third IDDs store lists of  
trusted DTDs including the associated N and M named DTDs, and wherein the first IDD  
generates the XML document and the respective DTD responsive to the command received over  
the IHDN.

22. The system as recited in claim 18, wherein said IDD's are interconnected to one another by an in home digital network (IHDN).

23. The system as recited in claim 18, wherein said IDD's are interconnected to one another via the internet.

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